

**EUROPEAN PATENT OFFICE**

2000P17803  
HITACHI LTD

**Patent Abstracts of Japan**

PUBLICATION NUMBER : 01169942  
PUBLICATION DATE : 05-07-89

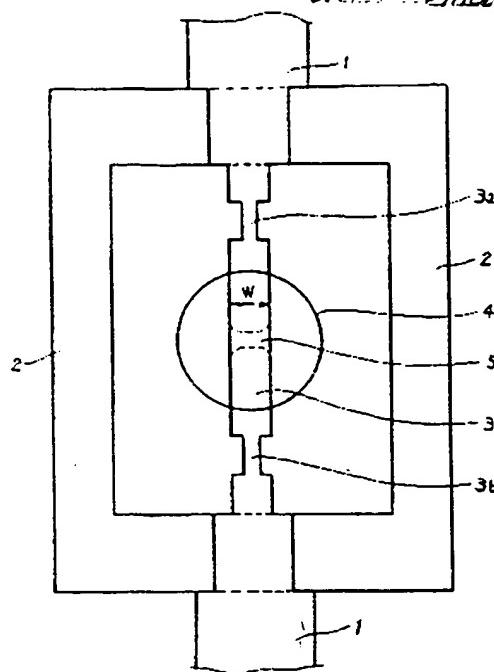
APPLICATION DATE : 25-12-87  
APPLICATION NUMBER : 62326929

APPLICANT : HITACHI LTD;

INVENTOR : SAITOU HIROYA;

INT.CL. : H01L 21/82 G11C 17/06 H01L 21/88  
H01L 27/10

TITLE : SEMICONDUCTOR DEVICE



**ABSTRACT :** PURPOSE: To reduce heat travelling from the central part of a wiring cutting-off link to the wiring direction by the effect of heat transfer, by arranging two or more parts whose widths are different from the other parts, in the wiring cutting-off link.

**CONSTITUTION:** A guard ring 2 prevents the permeation of contaminant from an external wiring 1. A wiring cutting-off link 3 is introduced into the guard ring 2. At two parts near both ends of the link 3 on an Si substrate, are arranged portions 3a, 3b whose widths are narrower than the other portions. When a circular region 4 containing a portion having a normal width W between the narrowed portions 3a, 3b of the link 3 is irradiated with a laser light of continuous oscillation like Ar laser, a central part 5 is fused and cut out, because thermal conduction to both ends of the irradiated part is restrained by the narrowed portions 3a, 3b, and the temperature of irradiated part is increased as the results of heat concentration. However, the Si substrate of lower layer suffers no damage at all, because the radiating laser light is continuous and the peak value is small.

COPYRIGHT: (C)1989,JPO&Japio